# **Siddhant Agarwal**

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#### **EDUCATION**

# Rensselaer Polytechnic Institute

Aug 2021 - May 2025

Bachelor of Science in Computer Science; GPA: 3.52; Dean's Honor List

Troy, NY

**Relevant Coursework**: Data Mining, Game AI, Data Structures and Algorithms, Discrete Mathematics, Principles of Software, Machine Learning From Data, Operating Systems, Software Design/Documentation, Database Systems, Programming Languages

## **SKILLS**

**Code Languages:** Advanced: C/C++, Python, HTML, JavaScript, MySQL, PostgreSQL; Basic: C#, Java, Erlang, Arduino, ASP.NET, VB.NET **Framework/Tools**: NumPy, TensorFlow, Py Torch, FAST API, Pandas, MIT App Inventor, React, Flask, Git, Unity, Eclipse, Spyder, Arduino

#### **EXPERIENCE**

#### Software Developer Intern

Jan 2024 - Jul 2024

Tenex Software Solutions

Tampa, FL

- Enhanced system stability and efficiency by implementing 50 feature enhancements and bug fixes, resulting in a 25% reduction in error reports and smoother performance in election management software
- Built automation and UI improvements, saving officials 2+ hours daily and enabling real-time ballot tracking across 2,300+ locations
- Optimized 20+ database queries and designed 10 new UI components using .NET, SQL, JavaScript, and Blazor, increasing data retrieval speed by 40% and improving user experience with more intuitive navigation
- Resolved 100+ critical client-reported issues with the new Blazor framework, achieving a 30% increase in system uptime and a 50% improvement in customer satisfaction scores
- Served as customer support for the Chicago primary, providing tech support and ensuring smooth election operations

# **Undergraduate Teaching Assistant**

Sep 2023 - Dec 2023

Rensselaer Polytechnic Institute

Troy, NY

• Conducted weekly office hours for Software Algorithms class, providing support to over 20 students by testing their code, prepping for tests, and responding to class-related inquiries; graded assignments and exams for more than 100 students.

#### **Software Engineer Intern**

Jun 2022 - Aug 2022

ThoughtFocus Inc.

Edison, NJ

- Collaborated with software engineers to integrate automated AI solutions, streamlining data processing for private equity, reducing operational time by 20%
- Developed/optimized tests and scripts, cutting errors and downtime by 80%, ensuring more stable system performance for clients
- Implemented AI-driven tools that increasing data accuracy and accessibility on client sites by 40%, enhancing data processing speed

## **PROJECTS**

#### Explainability of AI MIT App Inventor | Java, Python

Sep 2023 - Present

- Developed AI explainability features/counterfactual explanations, resulting in a 40% increase in user understanding of AI decisions
- Simplified complex AI models through distillation into decision trees; Enhanced interpretability by 60% for mobile devices
- Identified Linux specific challenges, resulting in a 50% improvement in system performance and stability through Java and Gradle

#### Text Generation Training Model | Python

Aug 2023 - Aug 2024

- Developed an LSTM-based text generation model in Python, using move summary data
- Enabled efficient model training for contextually relevant text generation, and improved text generation by 20%

# RPI Composite | Javascript, Python

Jun 2023 - Sep 2024

- Implemented a web scraping solution using Javascript to consolidate data from multiple college websites into one
- Improved user performance by cutting page load times by 80% and enhanced client experience with interactive features

# SuchLife | C#, Unity

Aug 2023 - Dec 2023

- Created 5 unique enemy variants that contributed to a 20% increase in gameplay variety for a 2D C#-powered AI game
- Collaborated with a diverse team (programmers, artists, level-designers) and improved game performance by 15%

## **LEADERSHIP**

# Technology Director/Events Co-Director

Apr 2022 - Present

Troy, NY

Society of Asian Scientists and Engineers

- Revamping the website, launching a new mail system, writing a monthly newsletter, and leading a 7-member committee
- Implemented a new webpage showcasing historical events and activities, driving a 70% increase in visitor traffic.
- Planned professional, academic, and social, events (4+ per month) and 2 large events (100 attendees), raising 200 dollars
- Supervised a 13 member committee to plan and facilitate events, assisted other clubs, and supplied with materials